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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Shinichi Kawaguchi

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03/30/2005

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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. <u>09/888,383</u>	Applicant(s) KAWAGUCHI, SHINICHI	
	Examiner Ronald Abelson	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 10 and 13 is/are rejected.
- 7) ☒ Claim(s) 6-8, 11, 12 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/11/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2666

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 9, are rejected under 35 U.S.C. 102(b) as being anticipated by Rolfe (US 5,313,645).

Regarding claims 1 and 9, Rolfe teaches a method and apparatus for a network apparatus (fig. 6) that interconnects two or more basic elements (fig. 6 see elements in plane 1 connected to plane 0 loop 0 and loop 1) each having the capability to function as a computer (fig. 6 box 15, col. 4 lines 32-34).

Rolfe teaches N switch device groups (fig. 6 loop 0 .. loop 4) each having N switch devices (fig. 6 note each loop contains five computers), each on said N switch device groups being electrically configured such that one of said N switch devices is connected to one of said basic elements without duplicity (fig. 6 see connection between computers 041 and 241) and first to Nth switch devices are connected in series in the

Art Unit: 2666

order that a first switch device is connected directly to a basic element, a second switch device is connected to said first switch device, a third switch device is connected to said second switch device and so on up to a final Nth switch device, said Nth switch device being connected to a (N-1)th switch device (fig. 6 loop 0).

Rolfe teaches N loop lines, each being configured by connecting one switch device in each of N switch device groups in a loop without duplication (fig. 6 ring 0 .. ring 4).

Regarding claim 9, in addition to the limitations previously addresses, two or more pairs of basic elements (fig. 6 computers in plane 1 and plane 4 connected to computer 041) wherein one of said N switch devices (fig. 6 computer 041) is connected to one pair of said basic elements.

Regarding claim 2, if a number n denotes an nth switch device, said loop line connects a switch device of each switch device group in a loop such that the switch device numbers increase one by one with progression around the loop line in either a clockwise or counter-clockwise direction and such that the switch device of switch device number N is connected to the switch device of switch device number 1 (fig. 6 plane 0).

Art Unit: 2666

Regarding claim 3, one of said basic elements and said first switch device are bidirectionally connected for input and output of data (fig. 1: n=3, bidirectional links, col. 1 lines 41-43).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4, 5, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rolfe as applied to claims 3 and 9 above, and further in view of Bingham (US 6,041,056).

Regarding claim 10, Rolfe teaches if a number n denotes an nth switch device, said loop line connects a switch device of each switch device group in a loop such that the switch device numbers increase one by one with progression around the loop line in either a clockwise or counter-clockwise direction and

Art Unit: 2666

such that the switch device of switch device number N is connected to the switch device of switch device number 1 (fig. 6 plane 0), said one pair of said basic elements and said first switch device are bidirectionally connected for input and output of data (fig. 1: n=3, bidirectional links, col. 1 lines 41-43).

Regarding claims 4 and 10, Rolfe is silent on each of the switch devices in the switch group being unidirectionally connected for one-way transfer of data toward said first switch device.

Bingham teaches unidirectional transfer between devices on a ring (fig. 2 element 102, col. 12 lines 48-53).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Rolfe by transferring data unidirectionally between switch members in each switch group. This would improve the system by avoiding collisions due to adjacent switch devices trying to transfer data to each other simultaneously.

Regarding claim 5, connections between each of the switch devices that make up said loop lines are bi-directional connections for data transfer (Rolfe: fig. 1: n=3, bidirectional links, col. 1 lines 41-43).

Art Unit: 2666

Regarding claim 13, Rolfe teaches each loop transmission path of said loop transmission paths is composed of one loop line (fig. 6 ring 0 .. ring 4), and two basic elements are connected to the same switch device group (fig. 6 computers in plane 1 and plane 4 connected to computer 041) communicate with a basic element connected to another switch device group through the same loop line (fig. 6. see connection of computer 041 along ring 4).

Allowable Subject Matter

5. Claims 6-8, 11, 12, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter.

Regarding claims 6 and 14, nothing in the prior art of the record teaches or fairly suggests the combination of ports and decoders, in view of the teachings of the combination Rolfe and Bingham in combination with all the limitations listed in the claim.

Art Unit: 2666

Regarding claim 11, although Watkins (US 6,798,747) teaches loop transmission paths composed of two loop lines (fig. 1), nothing in the prior art of the record teaches nor fairly suggests the two basic elements connected to the same switch device group (Rolfe: fig. 6 computers in plane 1 and plane 4 connected to computer 041) communicate with basic elements connected to other switch device groups through different loop lines of the same loop transmission path, in combination with all the limitations listed in the claim.

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RA
Ronald Abelson
Examiner
Art Unit 2666


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2666 9/28/05